

R-8808 - A HIGH YIELDING PEANUT BUD NECROSIS TOLERANT GROUNDNUT VARIETY

Peanut bud necrosis disease (PBND) caused by peanut bud necrosis virus (PBNV) is one of the important groundnut virus diseases during *kharif* and *Rabi/summer* in parts of Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh. In Northern Karnataka, Tungabhadra project (TBP) and Upper Krishna Project (UKP) command areas are considered as hot spots for PBND. Groundnut produced during *Rabi/summer* season in these areas often encounter moisture stress suggesting the need for an early duration variety. Keeping this in view trials were conducted during 1990-1993 at different locations to identify a high yielding, short duration and PBND resistant tolerant variety.

The genotype R-8808 is a derivative of ICGS-11 and Chico, a short duration Russian variety. One of its parents ICGS-11, because of its long duration (>130 days) is vulnerable to end season drought. The short duration (110-120 days) variety R-8808 fits into the limited water availability period of

these command areas, especially during *rabi/summer* season.

Variety R-8808 recorded an average yield of 18.2 q/ha in *kharif* and 35.2 q/ha in *rabi/summer* over eight seasons (1990-1993) at different locations of Northern Karnataka, accounting for 50 per cent increase in yield over KRG-1 and 11.6 per cent over JL-24 during *kharif* and 44.5 and 19.2 per cent over KRG-1 and ICGS-11 respectively during *rabi/summer* (Table-1).

The variety R-8808 had lesser incidence of peanut bud necrosis disease (1.23-2.40%) in both the seasons (1990-1993) than KRG-1 (20.80-49.35%), JL-24 (41.27-42.00%) and ICGS-11 (9.10%), indicating its resistance/tolerance to PBND. This variety also recorded 70-73 per cent shelling, 88-90 per cent sound mature kernels and 48-50 per cent oil content. The kernels are attractive with dark tan colour, medium in size with a 100 seed weight of 38.0g. Thus, R-8808 could be grown successfully in hot spots of PBND for realising higher yields.

AICRP On Groundnut,
Regional Research Station,
Raichur - 584 101.
* ICRISAT, Patancheru,
Andhra Pradesh

P.S. DHARMARAJ
H.D. UPADHYAY*
V.K. DESHPANDE
B.S. SARALA
V.B. NARAGUND

Table 1. Relative yield performance (q/ha) of R-8808 over checks

| Years | Kharif | | | Rabi/Summer | | |
|------------|--------|-------|-------|-------------|---------|-------|
| | R-8808 | JL-24 | KRG-1 | R-8808 | ICGS-11 | KRG-1 |
| 1989-90 | 18.0 | 20.2 | 14.6 | 41.6 | 42.0 | 36.3 |
| 1990-91 | 23.6 | 22.8 | 21.3 | 36.4 | 31.1 | 18.1 |
| 1991-92 | - | - | - | 25.1 | 23.2 | 17.7 |
| 1992-93 | 16.5 | 11.0 | 7.3 | 37.7 | 27.6 | 26.8 |
| Mean | 18.2 | 16.3 | 12.1 | 35.2 | 29.5 | 24.4 |
| % increase | | 11.6 | 50.0 | | 19.0 | 11.5 |

Table 2. Reaction of R-8808 to Peanut Bud Necrosis Disease

| Years | Kharif | | | Rabi/Summer | | | |
|---------|--------|-------|-------|-------------|-------|-------|---------|
| | R-8808 | JL-24 | KRG-1 | R-8808 | JL-24 | KRG-1 | ICGS-11 |
| 1990-91 | 3.7 | 56.5 | 26.7 | 5.0 | 48.0 | - | 13.0 |
| 1991-92 | 0.0 | 52.3 | 23.7 | 2.2 | 36.0 | 38.7 | 13.0 |
| 1992-93 | 0.0 | 15.0 | 12.0 | 0.0 | - | 60.0 | 1.32 |
| Mean | 1.23 | 41.27 | 20.80 | 2.40 | 42.00 | 49.35 | 9.10 |